

## ***ENCEPHALITIS, ARBOVIRAL***

### **I. IDENTIFICATION**

- A. **CLINICAL DESCRIPTION:** Arboviral infection may result in a febrile illness of variable severity associated with neurologic symptoms ranging from headache to aseptic meningitis or encephalitis. Arboviral encephalitis cannot be distinguished clinically from infection with other neurotropic viruses. Symptoms include headache, confusion or other alterations in sensorium, nausea, or vomiting. Signs may include evidence of elevated intracranial pressure, or meningeal irritation, cranial nerve palsies, paresis or paralysis, altered reflexes, or convulsions. Arboviruses causing encephalitis include the following:

1. St. Louis encephalitis
2. Western equine encephalitis
3. Eastern equine encephalitis
4. California encephalitis (includes La Crosse virus).
5. Venezuelan equine encephalitis
6. West Nile virus.

- B. **REPORTING CRITERIA:** Laboratory confirmation.

- C. **LABORATORY CRITERIA FOR CONFIRMATION:**

- Fourfold or greater change in virus-specific serum antibody titer, **OR**
- Isolation of virus from or demonstration of specific viral antigen or genomic sequences in tissue, blood, cerebrospinal fluid (CSF), or other body fluid, **OR**
- Virus-specific immunoglobulin M (IgM) antibodies demonstrated in CSF by antibody-capture enzyme immunoassay (EIA), **OR**
- Virus-specific IgM antibodies demonstrated in serum by antibody-capture EIA and confirmed by demonstration of virus-specific serum immunoglobulin G (IgG) antibodies in the same or a later specimen by another serologic assay (e.g., neutralization or hemagglutination inhibition).

- D. **KENTUCKY CASE DEFINITION:** A clinically compatible illness that is laboratory confirmed.

### **II. ACTIONS REQUIRED / PREVENTION MEASURES**

- A. **KENTUCKY DISEASE SURVEILLANCE REQUIRES URGENT NOTIFICATION: REPORT TO THE LOCAL OR STATE HEALTH DEPARTMENT IMMEDIATELY** upon recognition of a case or suspected case in a time period not greater than 24 hours. If health department personnel cannot be contacted directly, notification shall be made by electronic submission or by telephone

to the emergency number of the Division of Epidemiology and Health planning: **1-888-973-7678**.

**B. EPIDEMIOLOGY REPORTS REQUESTED:**

- Kentucky Reportable Disease Form – EPID 200 (Rev. Jan/03).

**C. PUBLIC HEALTH INTERVENTIONS:**

- Source investigation by LHD to identify mosquito breeding sites near the probable location of the exposure.
- Educate the public to the modes of spread and control.

**III. CONTACTS FOR CONSULTATION**

**A. KENTUCKY DEPARTMENT FOR PUBLIC HEALTH, SURVEILLANCE AND HEALTH DATA BRANCH: 502-564-3418.**

**B. KENTUCKY DEPARTMENT FOR PUBLIC HEALTH, DIVISION OF LABORATORY SERVICES: 502-564-4446.**

**IV. RELATED REFERENCES**

1. Chin, James, ed. ARTHROPOD-BORNE VIRAL ENCEPHALITIS. In: Control of Communicable Diseases Manual. 17<sup>th</sup> ed. Washington, DC: American Public Health Association, 2000: 39-43.
2. Pickering LK, ed. Arboviruses. In: 2000 Red Book: Report of the Committee on Infectious Diseases. 25<sup>th</sup> ed. Elk Grove Village, IL: 170-175.